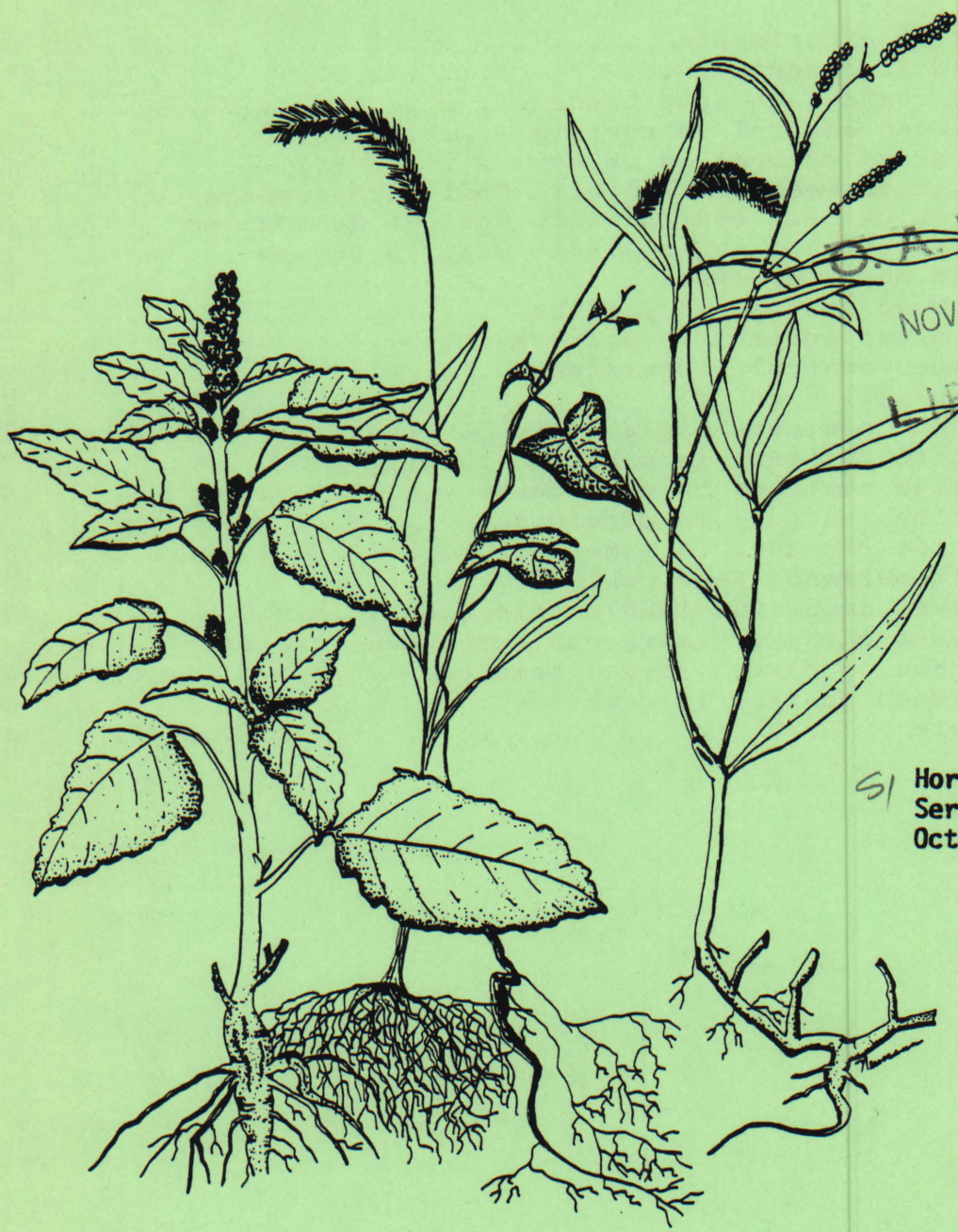
RESULTS OF WEED CONTROL STUDIES IN VEGETABLE CROPS— 1988



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Results of Field Experiments in Vegetable Crops-1988

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General Materials and Methods

Abbreviations for herbicide application methods:

PPI	-Preplant incorporated
Pre	-Preemergence to the weed and crop
Del Pre	-Delayed preemergence, just prior to crop emergence
Post	-Postemergence to the weed and crop

Sprayer:
Treatments were applied with a CO_2 backpack type sprayer with a gpa of 25. Other volumes used are noted in individual studies.

Weed Ratings:
Weed counts were made by counting the number of weeds in a 1 square foot wire frame. Counts were made approximately 30 days after treatment. All plots were cultivated and hoed regularly after weed counts were taken (except unweeded check).

Injury rating:
Visual rating was done on a percent injury rating with 0 denoting no injury and 100 indicating plant death.

Statistical Analysis:
Fishers LSD at the 5% level was performed on all experiments.
Plot design was a Randomized Complete Block (RCB) with 3,4, or 5 reps.

Activated Carbon:
An activated carbon/vermiculite safening system was used on some seeded crops (tomato). 1 lb. activated carbon was mixed with each cubic foot of vermiculite. This mixture was then used to fill the seed furrow. One ft^3 covers approximately 600 ft. of row.

Spray Additives:
Some postemergence applications were with crop oil concentrate (C.O.C.) or a nonionic surfactant (X-77).

Appreciation is given to the following people for their assistance in conducting these research studies:

Mr. Gerald Myers - Farm Superintendent, Columbus
Mr. Richard Hassel - Branch Manager, Celeryville
Mr. Chuck Willer - Branch Manager, Fremont
Ms. Karen Hale - Research Associate
Ms. Sandy Thomas - Graduate Research Assistant

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1988 Rainfall - Muck Crops Branch, Celeryville

Day	May	June	July	August
1				
2		0.09		
3				
4	0.04			
5	0.25			0.08
6				0.14
7			0.17	
8				
9	0.42	0.03		
10				0.34
11			0.14	0.02
12				
13				
14				
15				0.07
16	0.44	0.19		0.09
17				
18			0.58	0.48
19	0.04		0.13	0.68
20			0.11	0.02
21			0.05	
22			0.68	
23	0.01	0.10	0.01	0.60
24				
25			0.42	
26			0.12	
27				
28		1.21		
29				
30			2.32	
31				

1988 Rainfall - Lane Avenue Farm, Columbus

DAY	MAY	JUNE	JULY	AUGUST
1				0.03
2				
3		0.30		
4				
5				
6				
7				
8				0.02
9		0.70		
10	0.30			
11			0.01	
12				
13				
14			0.12	
15				
16	0.10			
17		0.35		
18				
19			1.50	0.50
20			2.00	
21			2.30	
22				1.30
23				
24	0.40			
25	TRACE		0.80	
26			0.02	
27				
28				
29				
30				
31				
TOTAL INCHES	0.80	1.35	6.75	

1988 Rainfall - Vegetable Crops Branch, Fremont

Day	May	June	July	August
1				
2		0.35		
3				0.03
4				
5				
6				0.68
7				
8	0.03			
9	0.12			
10				
11			0.42	0.02
12				
13				
14				
15	0.52			0.09
16		0.03		0.85
17			0.26	
18				0.90
19			0.45	1.35
20				0.02
21			0.24	
22		0.25		
23	0.09		0.13	
24				0.52
25				
26			0.46	
27				
28				
29				
30				
31			0.86	

Table 1. Chemicals Used in Experiments

Common Name	Trade Name
Acifluorfen	Blazer
Alachlor	Lasso
Atrazine	Aatrex
Atrazine/Bentazon	Laddock
Bentazon	Basagran
Butylate + R25788	Sutan +
CGA-136872	Beacon
Chloramben	Amiben
Chlorimuron	Classic
Chlorimuron/Metribuzin	Preview
Clomazone	Command
Diquat	Ortho Diquat
DPXA7881*	DuPont
EPTC + R25788	Eradicane
Fluazifop	Fusilade 2000
Glyphosate	Roundup
Imazaquin	Scepter
Imazethapyr	Pursuit
Lentagran	Pyridate
Linuron	Lorox
Metolachlor	Dual
Metribuzin	Sencor/Lexone
Oxyfluorfen	Goal
Pronamide	Kerb
Propachlor	Ramrod
Sethoxydim	Poast
Trifluralin	Treflan

*Experimental compound, name of manufacturer is listed in place of trade name.

Table 2. Weeds Mentioned in Report

Abbreviation	Common Name	Scientific Name
BLNS	black nightshade	*Solanum nigrum*
CATH	Canada thistle	*Cirsium arvense*
COLQ	common lambsquarters	*Chenopodium album*
COPU	common purslane	*Portulaca oleracea*
FOX	foxtail spp.	*Setaria* spp.
HAGA	hairy galinsoga	*Galinsoga ciliata*
LAGA	large crabgrass	*Digitaria sanguinalis*
RRPW	redroot pigweed	*Amaranthus retroflexus*
SMPW	smooth pigweed	*Amaranthus hybridus*
VEMA	Venice mallow	*Hibiscus trionum*

TITLE: CANADIAN THISTLE CONTROL IN SNAP BEANS

LOCATION: Columbus
PERSONNEL: S.F. Gorski & G. Myers

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam, 2% O.M., pH 6.0
B.) Cultivar: Tendercrop
C.) Date Planted: June 23
D.) Rating Date: June 23, 30, July 15, & August 22
E.) Date Harvested: August 22
F.) Plot Size: 5 ft by 25 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: June 17
B.) Type: Post
C.) Soil Moisture, Surf: Moderate
D.) Weather
Wind (MPH): Calm
Sky Cover: Sunny
Air Temp: 75 F
E.) Growth Stage, Crop: Pre
Weed: Bud stage

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 10 & 20
PSI: 35
Tips: 8001 & 8002
Nozzle Spacing: 18 in
Height: 18 in

INCORPORATION EQUIPMENT: none

COMMENTS: The field was disked after the initial rating and before planting. Canadian thistle never grew back and was not a problem in any of the treatments. The entire field was treated with metolachlor at planting for annual weed control.

CANADIAN THISTLE CONTROL IN SNAP BEANS

HERBICIDE NAME		RATE #ai/A	GPA	% INJURY BDLVS	% INJURY CATH	YIELD LBS.
WEEDY				0.0	0.0	6.4
WEEDED				100.0	100.0	17.2
GLYPHOSATE	3.0E	0.56	10	60.0	20.0	12.5
X-77	%	0.25	10			
GLYPHOSATE	3.0E	0.56	10	90.0	30.0	17.4
AMS	%	2.00	10			
X-77	%	0.25	10			
GLYPHOSATE	3.0E	0.56	20	76.7	26.7	14.8
X-77	%	0.25	20			
GLYPHOSATE	3.0E	0.56	20	76.7	23.3	10.5
AMS	%	2.00	20			
X-77	%	0.25	20			
GLYPHOSATE	3.0E	0.75	10	86.7	60.0	18.4
X-77	%	0.25	10			
GLYPHOSATE	3.0E	0.75	10	86.7	26.7	15.0
AMS	%	2.00	10			
X-77	%	0.25	10			
GLYPHOSATE	3.0E	0.75	20	76.7	23.3	18.8
X-77	%	0.25	20			
GLYPHOSATE	3.0E	0.75	20	86.7	30.0	16.7
AMS	%	2.00	20			
X-77	%	0.25	20			
GLYPHOSATE	3.0E	1.13	10	90.0	40.0	19.7
X-77	%	0.25	10			
GLYPHOSATE	3.0E	1.13	10	90.0	40.0	22.1
AMS	%	2.00	10			
X-77	%	0.25	10			
GLYPHOSATE	3.0E	1.13	20	76.7	30.0	10.2
X-77	%	0.25	20			
GLYPHOSATE	3.0E	1.13	20	80.0	30.0	10.8
AMS	%	2.00	20			
X-77	%	0.25	20			
LEAST SIGNIFICANT DIFF. (.05)			=	27.0	23.4	8.3
STANDARD DEVIATION			=	16.1	13.9	4.9
COEFF. OF VARIABILITY			=	20.9	40.7	35.3

TITLE: POSTEMERGENCE WEED CONTROL IN CARROTS

LOCATION: CELERYVILLE
PERSONNEL: S. F. GORSKI & R. HASSELL

PLOT INFORMATION

A.) Soil Type: Carlisle Muck 75% O. M. pH 5.3
B.) Cultivar: Scarlet Nantes
C.) Date Planted: May 24
D.) Rating Date: July 12
E.) Date Harvested: August 2
F.) Plot Size: 5 ft X 25 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: June 28
B.) Type: Post
C.) Soil Moisture, Surf: Wet
D.) Weather
Wind (MPH): 4 NE
Sky Cover: P cloudy
Air Temp: 76 F
E.) Growth Stage, Crop: 3-4"

Weed: Grass 3-4 lf

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

COMMENTS: Due to light weed pressure, this study represents crop phytotoxicity only. There were no visible injury symptoms to any of the carrots from any of the treatments.

POSTEMERGENCE WEED CONTROL IN CARROTS

HERBICIDE NAME	RATE #ai/A	YIELD LBS
WEEDY		18.7
LINURON	0.75	18.0
LINURON	1.00	18.9
SETHOXYDIM	0.20	18.6
DASH	1.00	
SETHOXYDIM	0.20	19.5
DASH	1.00	
LINURON	1.00	
SETHOXYDIM	0.20	20.5
DASH	1.00	
LINURON	0.25	
SETHOXYDIM	0.20	18.7
DASH	1.00	
LINURON	0.50	
SETHOXYDIM	0.20	16.3
DASH	1.00	
LINURON	1.00	
SETHOXYDIM	0.20	18.8
DASH	1.00	
AMM SULF	2.50	
LEAST SIGNIFICANT DIFF 5%		3.8
STANDARD DEVIATION		2.6
COEFF. OF VARIABILITY		14.1

TITLE: POSTEMERGENCE GRASS CONTROL IN CELERY

LOCATION: CELERYVILLE
PERSONNEL: S. F. GORSKI & R. HASSELL

PLOT INFORMATION

A.) Soil Type: Carlisle Muck, 75% O. M., pH 5.3
B.) Cultivar: Utah 5270
C.) Date Planted: May 24
D.) Rating Date: July 12
E.) Date Harvested: August 4
F.) Plot Size: 5 ft X 18 ft
G.) Plot Design: RCB with 4 reps

HERBICIDE APPLICATION DATA

A.) Date: June 28
B.) Type: Post
C.) Soil Moisture, Surf: wet
D.) Weather
Wind (MPH): 4 NE
Sky Cover: P cloudy
Air Temp: 76 F
E.) Growth Stage, Crop: 4-6"

Weed: Grass 3-4 lf

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

COMMENTS: Due to extremely light grassy weed pressure, this study represents crop phytotoxicity only. There was no visible injury to the celery from any of the treatments. All annual grassy weeds that were present were controlled by all treatments and there did not appear to be a treatment effect.

POSTEMERGENCE GRASS CONTROL IN CELERY

HERBICIDE NAME	RATE #ai/A	YIELD LBS
WEEDY		13.7
WEEDED		14.4
SETHOXYDIM	0.20	13.2
COC	1.00	
SETHOXYDIM	0.20	16.8
DASH	1.00	
SETHOXYDIM	0.20	14.6
DASH	2.00	
FLUAZIFOP	0.20	13.5
COC	1.00	
LEAST SIGNIFICANT DIFF 5%		6.1
STANDARD DEVIATION		4.0
COEFF. OF VARIABILITY		28.1

TITLE: CLEAR PLASTIC MULCH WEED CONTROL WITH GOAL

LOCATION: COLUMBUS
PERSONNEL: S. F. GORSKI & G. MYERS

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam 2% O. M. pH 6.0
B.) Cultivar: Elite Zucchini, Marketmore 76 Cucumbers,
C.) Date Planted: June 7 Gold Star Muskmelon
D.) Rating Date: June 21
E.) Date Harvested: Various
F.) Plot Size: 5 ft X 25 ft
G.) Plot Design: RCB with 4 reps

HERBICIDE APPLICATION DATA

A.) Date: May 26
B.) Type: Pre
C.) Soil Moisture, Surf: Dry
D.) Weather
Wind (MPH): 1-2 SW
Sky Cover: Sunny
Air Temp: 60 F
E.) Growth Stage, Crop:

Weed:

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

COMMENTS: Clear plastic mulch was layed immediately after application. All treatments essentially provided the same level of weed control and there were no differences in yields.

CLEAR PLASTIC/GOAL & CUCUMBERS

HERBICIDE NAME	RATE #ai/A	% WEED CONTROL	YIELD # FRUIT	YIELD LBS
CONTROL		0.0	11.9	5.1
OXYFLUORFEN	0.25	100.0	10.0	4.9
OXYFLUORFEN	0.38	97.5	12.3	3.8
OXYFLUORFEN	0.50	98.8	17.4	5.8
OXYFLUORFEN	0.75	98.8	8.6	4.0
LEAST SIGNIFICANT DIFF 5%		4.5	9.9	4.5
STANDARD DEVIATION		2.9	6.4	2.9
COEFF. OF VARIABILITY		3.7	53.4	61.5

CLEAR PLASTIC/GOAL & MUSKMELONS

HERBICIDE NAME	RATE #ai/A	% WEED CONTROL	YIELD # FRUIT	YIELD LBS
CONTROL		0.0	30.5	118.7
OXYFLUORFEN	0.25	100.0	33.5	146.5
OXYFLUORFEN	0.38	97.5	38.3	152.8
OXYFLUORFEN	0.50	98.8	29.8	123.7
OXYFLUORFEN	0.75	98.8	30.3	124.8
LEAST SIGNIFICANT DIFF 5%	=	4.5	10.4	33.9
STANDARD DEVIATION	=	2.9	6.8	22.0
COEFF. OF VARIABILITY	=	3.7	20.9	16.5

CLEAR PLASTIC/GOAL & SQUASH

HERBICIDE NAME	RATE #ai/A	% WEED CONTROL	YIELD # FRUIT	YIELD LBS
CONTROL		0.0	11.3	4.6
OXYFLUORFEN	0.25	100.0	13.4	5.6
OXYFLUORFEN	0.38	97.5	11.1	5.3
OXYFLUORFEN	0.50	98.8	14.4	5.3
OXYFLUORFEN	0.75	98.8	10.9	6.4
LEAST SIGNIFICANT DIFF 5%		4.5	2.6	4.5
STANDARD DEVIATION		2.9	1.6	2.9
COEFF. OF VARIABILITY		3.7	13.6	54.1

TITLE: WEED CONTROL IN MUSTARD GREENS

LOCATION: COLUMBUS
PERSONNEL: S. F. GORSKI & G. MYERS

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam 2% O. M. pH 6.0
B.) Cultivar: Green Wave
C.) Date Planted: May 26
D.) Rating Date: June 13, June 30
E.) Date Harvested: July 6
F.) Plot Size: 5 ft X 25 ft
G.) Plot Design: RCB with 4 reps

HERBICIDE APPLICATION DATA

A.) Date: May 26
B.) Type: PPI
C.) Soil Moisture, Surf: Moist
D.) Weather
Wind (MPH): 1-2 W
Sky Cover: Sunny
Air Temp: 60 F
E.) Growth Stage, Crop:

Weed:

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

INCORPORATION EQUIPMENT: Rototiller, 2" deep

COMMENTS: At the 3 leaf stage, June 13, the greens treated with clomazone at 0.50 lbai/A showed 40% injury, stunted with white leaves. Clomazone at the 1.00 lbai/A rate injured the greens up to 50% with the same symptons. At harvest time, only the greens treated with the 1.00 lbai/a rate of clomazone showed any of the white injury symptons.

WEED CONTROL IN MUSTARD GREENS

HERBICIDE NAME	RATE #ai/A	YIELD LBS	% INJURY	WEED COUNT PER SQ. FOOT					
				BLNS	COPU	VEMA	LACG	SMPW	HAGA
WEEDY		6.7	0.0	0.5	15.0	1.0	0.3	1.0	1.0
WEEDED		7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRIFLURALIN	1.00	9.2	0.0	0.5	1.8	1.5	0.5	0.0	1.3
CLOMAZONE	0.50	6.6	10.0	0.8	0.5	0.0	0.3	0.8	0.3
CLOMAZONE	1.00	3.9	47.5	3.5	0.0	0.0	0.0	1.5	0.0
PROPACHLOR	2.00	8.9	0.0	0.0	10.3	0.5	0.0	0.5	0.0
LEAST SIGNIFICANT DIFF 5%		3.7	9.5	3.8	5.7	0.7	0.6	1.1	1.0
STANDARD DEVIATION		2.4	6.3	2.5	3.8	0.4	0.4	0.7	0.7
COEFF. OF VARIABILITY		34.2	65.7	288.0	82.3	98.9	244.9	111.5	167.8

TITLE: POSTEMERGENCE WEED CONTROL IN LETTUCE

LOCATION: CELERYVILLE
PERSONNEL: S.F. GORSKI & R. HASSELL

PLOT INFORMATION

A.) Soil Type: Carlisle Muck, 75% O.M., pH 5.3
B.) Cultivar: Tanya Boston
C.) Date Planted: May 24
D.) Rating Date: June 27
E.) Date Harvested: July 8
F.) Plot Size: 5 ft. by 18 ft.
G.) Plot Design: RCB with 4 reps

HERBICIDE APPLICATION DATA

A.) Date: June 14
B.) Type: Post
C.) Soil Moisture, Surf: Dry
D.) Weather
Wind (MPH): 5 MPH
Sky Cover: Sunny
Air Temp: 90 F
E.) Growth Stage, Crop: 1-2 leaf

Weed:	Grass	1-2 leaf
	COPU	2-6 leaf
	RRPW	2-4 leaf

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

COMMENTS: All plots were treared with 1 lb ai/A chloramben immediately after planting. There was no visible injury to the lettuce from either postemergence herbicide tested. DPXA 7881 caused a browning of the pigweed leaves, but the pigweed outgrew the injury. There was no activity on the purslane with the DPX compound. Pronamide had no postemergence activity on the weeds or crop. In a second grower study (data not shown) DPXA7881 provided excellent control of livid amaranthus with only a slight injury to the lettuce. Variability of results may be due to the hot dry weather conditions experienced during the first field study.

POSTEMERGENCE WEED CONTROL IN LETTUCE

HERBICIDE NAME	RATE #ai/A	YIELD LBS
WEEDY		7.8
WEEDED		8.9
DPXA7881	0.008	7.8
X-77	0.25	
DPXA7881	0.016	6.4
X-77	0.25	
DPXA7881	0.032	7.1
X-77	0.25	
PRONAMIDE	4.00	7.8
PRONAMIDE	6.00	7.3
PRONAMIDE	8.00	7.9
LEAST SIGNIFICANT DIFF 5%		2.7
STANDARD DEVIATION		1.8
COEFF. OF VARIABILITY		24.2

TITLE: POSTEMERGENCE GRASS CONTROL IN PICKLES

LOCATION: Fremont
PERSONNEL: S.F. Gorski & C. Willer

PLOT INFORMATION

A.) Soil Type: Sandy Loam, 3% O.M.
B.) Cultivar: Calypso
C.) Date Planted: May 31
D.) Rating Date: July 12
E.) Date Harvested: Multiple
F.) Plot Size: 5 ft by 30 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: June 28
B.) Type: Post
C.) Soil Moisture, Surf: Dry
D.) Weather
Wind (MPH): Calm
Sky Cover: Clear
Air Temp: 85 F
E.) Growth Stage, Crop: 6-8"

Weed: None present

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

INCORPORATION EQUIPMENT: none

COMMENTS: Weed pressure was extremely light due to the droughty conditions. The few grassey weeds that were present were completely controlled by all treatments. There was no visible injury to the crop from any of the treatments. Yield data shows a significantly lower yield for the treatment containing DASH. I do not believe this to be a reliable figure and is probably a result of the adverse summer temperatures.

POSTEMERGENCE GRASS CONTROL IN PICKLES

HERBICIDE	FORM	RATE #ai/A	YIELD LBS.
CONTROL			72.4
SETHOXYDIM	1.5E	0.2	78.4
CROP OIL CONC.	%	1.0	
SETHOXYDIM	1.5E	0.2	58.9
DASH	%	1.0	
SETHOXYDIM	1.5E	0.2	76.9
DASH	%	2.0	
FLUAZIFOP-P	1.0E	0.2	71.6
CROP OIL CONC.	%	1.0	

LEAST SIGNIFICANT DIFF. (.05)	=	8.2
STANDARD DEVIATION	=	4.4
COEFF. OF VARIABILITY	=	7.4

TITLE: PREEMERGENCE WEED CONTROL IN POTATOES

LOCATION: Columbus
PERSONNEL: S.F. Gorski & G. Myers

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam, 2% O.M., pH 6.0
B.) Cultivar: Superior
C.) Date Planted: April 20
D.) Rating Date: June 7
E.) Date Harvested: August 11
F.) Plot Size: 5 ft by 25 ft
G.) Plot Design: RCB with 4 reps

HERBICIDE APPLICATION DATA

A.) Date: April 20
B.) Type: Pre
C.) Soil Moisture, Surf: Moderate
D.) Weather
Wind (MPH): Calm
Sky Cover: P Cloudy
Air Temp: 65 F
E.) Growth Stage, Crop: Pre

Weed: Pre

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

PREEMERGENCE WEED CONTROL IN POTATOES

HERBICIDE NAME		RATE ai/A	WEED COUNTS / SQUARE FT. BYGR	COPU	COLQ	YIELD LBS.
WEEDY			4.8	3.8	1.5	15.4
WEEDED			0.0	0.0	0.0	28.7
METOLACHLOR/ METRIBUZIN	8.0E	2.75	0.3	0.1	0.5	30.8
LSD (0.05)			1.6	0.8	0.6	7.7
STANDARD DEVIATION			1.1	0.5	0.4	6.1
COEFF. OF VARIABILITY			37	25	14	12

TITLE: POTATO VINE DESICANT STUDY

LOCATION: Columbus
PERSONNEL: S.F. Gorski

PLOT INFORMATION

A.)	Soil Type:	Brookston Silty Clay Loam, 2% O.M., pH 6.0
B.)	Cultivar:	Superior
C.)	Date Planted:	April 20
D.)	Rating Date:	August 11
E.)	Date Harvested:	August 11
F.)	Plot Size:	6 ft by 25 ft
G.)	Plot Design:	RCB with 4 reps

HERBICIDE APPLICATION DATA

A.)	Date:	July 28	August 4
B.)	Type:	Post	Post + 7 days
C.)	Soil Moisture, Surf:	Moderate	Moderate
D.)	Weather		
	Wind (MPH):	Calm	Calm
	Sky Cover:	Clear	P Cloudy
	Air Temp:	85	88
E.)	Growth Stage, Crop:	18"	18"
	Weed:	None	

HERBICIDE APPLICATION EQUIPMENT

Sprayer:	CO2 Backpack
GPA:	25
PSI:	35
Tips:	8002
Nozzle Spacing:	18"
Height:	18"

POTATO VINE DESICANT STUDY

HERBICIDE NAME	Rate #ai/A	% KILL LEAF	% KILL VINE
Diquat 2.0E	0.25	55.3	15.7
Diquat 2.0E	0.25	74.7	68.0
Diquat 2.0E	0.25 (+7 days)		
Diquat 2.0E	0.25	95.3	84.7
Diquat 2.0E	0.50 (+7 days)		
LSD (0.05)		11.8	15.2
Standard Deviation		9.2	7.4
Coeff. of Variability		22.4	38.9

SOYBEAN HERBICIDE RESIDUES EXPERIMENTS

The following experiments were conducted to examine the potential carryover problems with the newly labeled soybean herbicides: Preview, Command, Pursuit, and Scepter. These herbicides were applied and incorporated immediately before planting of the vegetable crop. Application rates were 1/8, 1/4, and 1/2 the rate of the labeled use rate in soybeans. These rates were chosen to simulate a particular amount of herbicide that may have remained in the soil from the previous years soybean crop.

All crops were evaluated for injury caused by the soybean herbicide and yields were taken if possible.

TITLE: SOYBEAN HERBICIDE RESIDUES IN CABBAGE

LOCATION: COLUMBUS
PERSONNEL: S. F. GORSKI & G. MYERS

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam 2% O. M. pH 6.0
B.) Cultivar: King Cole
C.) Date Planted: May 3
D.) Rating Date: July 22
E.) Date Harvested: none
F.) Plot Size: 5 ft X 25 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: May 3
B.) Type: PPI
C.) Soil Moisture, Surf: Dry
D.) Weather
Wind (MPH): 5-7 NE
Sky Cover: Sunny
Air Temp: 65 F
E.) Growth Stage, Crop:

Weed:

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

INCORPORATION EQUIPMENT: Rototiller, 2" deep

COMMENTS: The chlorimuron/metribuzin prepackaged mix was very determental to the cabbage. Imazaquin at the high rates completely killed the cabbage and at the lowest rate had unacceptable cabbage injury. Imazethpyr followed the same trend as the imazaquin, but not at the same level of severity.

Clomazone injured the cabbage, but the level of injury may be acceptable.

These plots were not harvested due to the adverse growing conditions, the plants did not produce heads.

SOYBEAN HERBICIDE RESIDUES IN CABBAGE

HERBICIDE NAME	RATE # ai/A	% INJURY
CONTROL		0.0
CHLORIMURON/METRIBUZIN[1]	0.047	100.0
CHLORIMURON/METRIBUZIN[1]	0.094	100.0
CHLORIMURON/METRIBUZIN[1]	0.19	100.0
IMAZETHAPYR	0.01	25.0
IMAZETHAPYR	0.02	66.7
IMAZETHAPYR	0.04	93.3
CLOMZAONE	0.125	15.0
CLOMAZONE	0.25	10.0
CLOMAZONE	0.50	20.0
IMAZAQUIN	0.016	66.7
IMAZAQUIN	0.03	100.0
IMAZAQUIN	0.06	100.0
LEAST SIGNIFICANT DIFF 5%		35.5
STANDARD DEVIATION		21.0
COEFF. OF VARIABILITY		34.3

[1] A prepackaged mix sold under the tradename Preview.

TITLE: SOYBEAN HERBICIDE RESIDUES IN PICKLES

LOCATION: Fremont
PERSONNEL: S.F. Gorski & C. Willer

PLOT INFORMATION

A.) Soil Type: Sandy Loam, 3% O.M.
B.) Cultivar: Calypso
C.) Date Planted: May 31
D.) Rating Date: July 5
E.) Date Harvested: Multiple
F.) Plot Size: 5 ft by 30 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: May 31
B.) Type: Pre
C.) Soil Moisture, Surf: Dry
D.) Weather
Wind (MPH): 1 MPH
Sky Cover: Clear
Air Temp: 91 F
E.) Growth Stage, Crop: Pre
Weed: Pre

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18 in
Height: 18 in

INCORPORATION EQUIPMENT: rototiller, 2" deep

COMMENTS: Early season injury that was not severe was outgrown and yields were not reduced. High rates of imazethapyr and imazaquin reduced seedling emergence as well as causing plant stunting.

SOYBEAN HERBICIDE RESIDUES IN PICKLES

HERBICIDE	FORM	RATE #ai/A	%INJURY	YIELD LBS.
CONTROL			0.0	85.3
CHLORIMURON/METRIBUZIN	75.0W	.047	0.0	92.2
CHLORIMURON/METRIBUZIN	75.0W	.094	0.0	78.1
CHLORIMURON/METRIBUZIN	75.0W	0.19	10.0	82.1
IMAZETHAPYR	2.00E	0.01	13.3	80.5
IMAZETHAPYR	2.00E	0.02	36.7	70.0
IMAZETHAPYR	2.00E	0.04	66.7	37.7
CLOMAZONE	4.00E	.125	6.7	89.9
CLOMAZONE	4.00E	0.25	10.0	101.6
CLOMAZONE	4.00E	0.50	8.3	120.5
IMAZAQUIN	1.50L	.016	25.0	77.4
IMAZAQUIN	1.50L	0.03	75.0	53.9
IMAZAQUIN	1.50L	0.06	91.7	20.7
LEAST SIGNIFICANT DIFF. (.05)		=	16.1	36.5
STANDARD DEVIATION		=	9.6	21.7
COEFF. OF VARIABILITY		=	36.2	28.5

TITLE: SOYBEAN HERBICIDE RESIDUES IN POTATOES

LOCATION: COLUMBUS
PERSONNEL: S. F. GORSKI & G. MYERS

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam 2% O. M. pH 6.0
B.) Cultivar: Superior
C.) Date Planted: April 20
D.) Rating Date: June 7
E.) Date Harvested: August 11
F.) Plot Size: 5 ft X 25 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: April 20
B.) Type: PPI
C.) Soil Moisture, Surf: Moist
D.) Weather
Wind (MPH): 5 SW
Sky Cover: Sunny
Air Temp: 40 F
E.) Growth Stage, Crop:

Weed:

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

INCORPORATION EQUIPMENT: Finishing disc, 3" deep

COMMENTS: The imazaquin treatments injured the crop early on and reduced the stand leading to the reduction in yield. Imazethapyr followed the same trend, but not as severe as the imazaquin.

SOYBEAN HERBICIDE RESIDUES IN POTATOES

HERBICIDE NAME	RATE #ai/A	%INJURY	% STAND	YIELD LBS
CONTROL		0.0	96.7	28.7
IMAZETHAPYR	0.01	6.7	86.7	30.8
IMAZETHAPYR	0.02	3.3	88.3	28.0
IMAZETHAPYR	0.04	8.3	80.0	24.9
CLOMAZONE	0.125	1.7	90.0	30.8
CLOMAZONE	0.25	5.0	88.3	30.2
CLOMAZONE	0.50	10.0	88.3	38.6
IMAZAQUIN	0.016	23.3	78.3	24.8
IMAZAQUIN	0.03	55.0	78.3	11.3
IMAZAQUIN	0.06	56.7	58.3	12.1
LEAST SIGNIFICANT DIFF 5%		27.2	11.7	3.7
STANDARD DEVIATION		16.2	6.9	2.2
COEFF. OF VARIABILITY		116.7	8.2	8.2

TITLE: SOYBEAN HERBICIDE RESIDUES IN TOMATOES

LOCATION: FREMONT
PERSONNEL: S.F. Gorski & C. Willer

PLOT INFORMATION

A.) Soil Type: Silty Loam, 3% O.M.
B.) Cultivar: Heinz 1810
C.) Date Planted: May 20
D.) Rating Date: June 14
E.) Date Harvested: September 8
F.) Plot Size: 5 ft by 30 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: May 20
B.) Type: Pre
C.) Soil Moisture, Surf: Dry
D.) Weather
Wind (MPH): Calm
Sky Cover: Clear
Air Temp: 60 F
E.) Growth Stage, Crop: At transplanting

Weed: Pre

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

INCORPORATION EQUIPMENT: Rototiller, 2" deep

COMMENTS: Most of the injury observed was in the form of plant stunting with the exception of clomazone which caused a large amount of foliar chlorosis. Early season injury that was minor was outgrown by harvest and did not effect yield.

SOYBEAN HERBICIDE RESIDUES IN TOMATOES

HERBICIDE	FORM	RATE #ai/A	% INJURY	FRUIT WT (LBS) RED	FRUIT WT (LBS) TOTAL
CONTROL			0.0	65.2	236.7
CHLORIMURON/METRIBUZUN	75W	.047	0.0	82.2	208.2
CHLORIMURON/METRIBUZIN	75W	.094	0.0	73.8	210.2
CHLORIMURON/METRIBUZIN	75W	0.19	0.0	76.0	205.3
IMAZITHAPYR	2.00E	0.01	18.3	52.7	249.2
IMAZITHAPYR	2.00E	0.02	55.0	34.7	214.8
IMAZITHAPYR	2.00E	0.04	88.3	31.0	78.0
CLOMAZONE	4.00E	.125	4.0	69.7	231.0
CLOMAZONE	4.00E	0.25	11.7	54.2	188.2
CLOMAZONE	4.00E	0.50	23.3	62.3	227.8
IMAZAQUIN	1.50L	.016	20.0	52.0	216.5
IMAZAQUIN	1.50L	0.03	33.3	48.2	218.2
IMAZAQUIN	1.50L	0.06	63.3	23.5	102.7
LEAST SIGNIFICANT DIFF. (.05)		=	29.0	51.9	91.2
STANDARD DEVIATION		=	17.2	30.8	54.1
COEFF. OF VARIABILITY		=	70.5	55.2	27.2

TITLE: SWEET CORN POSTEMERGENCE WEED CONTROL

LOCATION: COLUMBUS
PERSONNEL: S. F. GORSKI & G. MYERS

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam 2% O. M. pH 6.0
B.) Cultivar:
C.) Date Planted: May 10
D.) Rating Date: June 7
E.) Date Harvested: August 1
F.) Plot Size: 5 ft X 25 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: May 31
B.) Type: Post
C.) Soil Moisture, Surf: Moist
D.) Weather
Wind (MPH): 2-3 W
Sky Cover: Sunny
Air Temp: 90 F
E.) Growth Stage, Crop: 3-5 lf

Weed:	COLQ	1-2"	COPU	< 1"
	SMPW	1-3"	FOX	1-3"
	HAGA	1-2"		

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002 FF
Nozzle Spacing: 18"
Height: 18"

COMMENTS: The atrazine/bentazon prepackaged mix provided excellent control of the broadleaves but not grasses and CGA-136872 did not provide acceptable control of any of the weed species present.

SWEET CORN POSTEMERGENCE WEED CONTROL

HERBICIDE NAME	RATE #ai/A	%INJURY	% CNTRL COLQ	% CNTRL SMPW	% CNTRL HAGA	% CNTRL COPU	% CNTRL FOX	YIELD # EARS	YIELD LBS
WEEDY		0.0	0.0	0.0	0.0	0.0	0.0	26.3	14.6
WEEDED		0.0	100.0	100.0	100.0	100.0	100.0	21.0	13.0
ATRAZINE/BENTAZON[1] 28%	0.83 0.04	0.0	100.0	98.3	100.0	100.0	0.0	27.3	17.4
ATRAZINE/BENTAZON[1] DASH	0.83 1.00	0.0	100.0	99.3	100.0	100.0	0.0	21.7	12.9
ATRAZINE/BENTAZON[1] COC	0.83 1.00	0.0	100.0	100.0	100.0	100.0	0.0	36.3	21.3
ATRAZINE/BENTAZON[1] 28%	1.04 0.04	0.0	100.0	100.0	100.0	100.0	0.0	30.3	17.2
ATRAZINE/BENTAZON[1] DASH	1.04 1.00	0.0	100.0	100.0	100.0	100.0	0.0	30.0	18.0
ATRAZINE/BENTAZON[1] COC	1.04 1.00	0.0	100.0	99.3	100.0	100.0	0.0	34.3	17.1
CGA-136872 X-77	.044 0.25	0.0	0.0	0.0	0.0	0.0	0.0	34.0	18.9
CGA-136872 X-77	.066 0.25	0.0	0.0	0.0	0.2	2.4	0.0	22.0	12.5
CGA-136872 X-77	.088 0.25	0.0	0.0	1.7	1.7	1.7	0.0	26.7	16.1
LEAST SIGNIFICANT DIFF 5%		0	0	2.4	1.5	1.9	0	13.6	8.3
STANDARD DEVIATION		0	0	1.4	0.9	1.1	0	8.0	4.8
COEFF. OF VARIABILITY		0	0	2.2	1.4	1.8	0	29.3	29.8

[1] A prepackaged mix sold under the tradename of Laddock

TITLE: SUPER SWEET SWEET CORN, CGA-136872 TOLERANCE

LOCATION: COLUMBUS
PERSONNEL: S.F. GORSKI & M. BENNETT

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam, 2% O.M., pH 6.0
B.) Cultivar: Various
C.) Date Planted: April 21
D.) Rating Date: June 23
E.) Date Harvested: None
F.) Plot Size: 1 row 25 ft. long
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: June 7
B.) Type: Post
C.) Soil Moisture, Surf: Wet
D.) Weather
Wind (MPH): 5 mph
Sky Cover: Sunny
Air Temp: 85 F
E.) Growth Stage, Crop: 4-6 leaf

Weed: none

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

COMMENTS: Sweet corn was evaluated for phytotoxicity only.

SUPER SWEET SWEET CORN, CGA-136872 TOLERANCE

% INJURY

VARIETY	RATE IN LBAI/A 0.044	0.066	0.088
SUMMER SWEET	10	55	30
SUMMER FLAVOR 80W	30	30	65
SUMMER FLAVOR 72Y	15	10	25
SUMMER SWEET 7610	5	20	15
SUMMER SWEET 7200	15	30	35
SUMMER SWEET 7900	30	10	25
SWEET BELLE	20	10	35
CALICO BELLE	40	50	80
XPH 2623 SH2	40	45	70
YANKEE BELLE	20	40	20
EVEN SWEETER	30	30	35
SPRING CALICO	20	20	25
XPH 2629	5	0	10
AZTEC	25	15	10
SNOWBELLE	60	40	75
SWEET SUCCESS	50		30
NATURAL SWEET	0	30	
HOW SWEET IT IS	20	25	30
JUBILEE	70	20	80
LANDMARK	0	25	35
HMX 6399S	0	20	10
TOPNOTCH	20	25	20
HMX 4379	30	15	40
HMX 5393	30	20	40
SILVERADO	5	5	0
SILVERETTE	30	20	45
2613 SUGARY ENHANCED	35	15	45
2692 SUGARY ENHANCED	10	55	0
ULTRA FLAVOR	30	10	45

SUPER SWEET SWEET CORN, PREEMERGENCE HERBICIDE TOLERANCE

This study was designed to measure the tolerance of 30 super sweet sweet corn varieties to 4 commonly used preemergence corn herbicides: Dual, Lasso, Sutan +, and Eradicane. A greenhouse and field study was conducted. Total germination data is presented for both studies.

SUPER SWEET SWEET CORN GREENHOUSE STUDY

Seeds were planted in flats, watered and placed in a refridgator for 7 days at 55 F. The flats were removed and placed outside during the early spring months. Temperatures ranged from 30-60 F. Stand counts or total germination was taken 3 weeks after being placed outside. Plants were harvested and weighed and there were no differences in the early growth of the plants.

SUPER SWEET SWEET CORN FIELD STUDY

Seeds were planted 9" apart in a 25 ft row (33 total seeds). The rows were spaced 30" apart. Stand counts were taken 2 and 4 weeks after germination. The 4 week count is presented.

SUPER SWEET SWEET CORN GERMINATION STUDY

VARIETY	GENOTYPE	GREENHOUSE HERBICIDE CODE[1] A	B	C	D	LSD 5%	FIELD HERBICIDE CODE[1] A	B	C	D	LSD 5%
SUMMER SWEET 8000	sh2	17.7	15.0	18.3	17.3	3.0	13.7	17.0	19.7	16.7	8.4
SUMMER FLAVOR 80W	se	16.7	19.7	15.7	19.7	2.6	19.3	18.3	7.0	20.7	16.7
SUMMER FLAVOR 72Y	se	16.0	17.0	15.3	18.3	3.1	19.7	18.0	17.3	16.7	8.1
SUMMER SWEET 7610	sh2	11.7	14.0	12.3	14.0	5.3	19.7	21.0	12.3	15.7	7.0
SUMMER SWEET 7200	sh2	10.0	13.7	12.3	15.3	4.7	16.7	14.3	16.7	13.7	6.2
SUMMER SWEET 7900	sh2	13.0	16.0	14.0	15.3	3.4	14.7	12.3	15.3	17.0	7.4
SWEET BELLE	sh2	17.7	16.7	15.3	18.7	4.2	18.0	12.3	23.0	17.7	5.0
CALICO BELLE	se	17.3	16.7	16.7	17.3	1.7	24.7	16.0	21.7	19.7	15.8
XPH 2623	sh2	14.3	15.3	12.0	17.0	4.0	17.3	16.0	17.0	19.0	9.3
YANKEE BELLE	sh2	14.7	17.3	12.0	17.3	2.2	24.7	18.0	16.0	11.7	12.2
EVEN SWEETER	sh2	14.7	15.0	9.0	15.7	4.8	14.0	11.7	13.7	15.7	7.3
SPRING CALICO	su	15.7	17.7	15.7	18.7	4.2	21.7	18.7	15.7	19.3	8.3
XPH 2629	se	18.0	17.3	18.3	19.7	0.7	23.3	21.3	21.7	26.7	10.6
AZTEC	su	14.0	16.7	17.3	18.3	3.8	24.7	16.7	23.0	18.0	6.8
SNOWBELLE	se	16.3	18.3	17.7	19.0	2.4	20.7	17.7	14.3	23.3	8.2
SWEET SUCCESS	sh2	14.3	14.3	13.0	18.0	3.9	11.7	8.7	9.7	9.0	9.3
NATURAL SWEET	sh2	17.3	16.3	17.7	16.7	4.4	10.0	15.7	15.3	15.3	7.4
PGG 27-B	su	14.7	15.0	13.7	14.3	3.3	8.0	7.3	6.0	9.3	4.2
HOW SWEET IT IS	sh2	11.0	16.3	15.7	17.0	5.8	17.3	14.0	13.3	8.0	11.2
JUBILEE	su	19.0	18.7	18.7	19.3	1.4	21.0	17.7	21.0	21.0	7.4
LANDMARK	sh2	13.3	16.3	16.0	17.3	4.0	20.7	22.3	23.0	19.0	6.8
HMX 6399S	sh2	13.0	15.0	14.7	15.7	3.3	20.7	24.7	19.7	22.3	9.5
TOPNOTCH	sh2	14.7	17.7	13.3	16.3	2.7	18.7	16.0	17.0	16.7	11.8
HMX 4379	sh2	15.0	14.7	14.7	16.7	2.6	18.7	16.7	16.3	17.3	11.1
HMX 5393	se	17.3	19.3	17.0	20.0	2.7	27.3	24.0	14.0	17.3	18.4
SILVERADO	se	17.0	18.0	19.3	19.0	4.5	28.0	20.0	27.0	19.0	5.3
SILVERETTE	se	18.7	18.3	17.7	18.7	3.2	25.3	22.0	19.0	19.7	15.3
2613 SUGARY ENHANCED		19.0	18.7	19.0	18.3	2.2	26.0	20.3	18.0	21.0	5.3
2692 SUGARY ENHANCED		18.3	19.7	19.3	19.3	1.3	23.7	15.3	18.3	16.0	9.9
ULTRA FLAVOR		18.0	18.7	17.0	17.7	3.5	26.7	22.7	19.3	18.3	7.0

[1]HERBICIDE CODE LETTERS: A= Metolachlor; A
B= Alachlor: B
C= Butylate + R25788; C
D= EPTC + R25788; D

TITLE: CHLORAMBEN/CARBON ON DIRECT SEEDED TOMATOES

LOCATION: COLUMBUS
PERSONNEL: S.F. GORSKI & G. MYERS

PLOT INFORMATION

A.) Soil Type: Brookston Silty Clay Loam, 2 % O.M., pH 6.0
B.) Cultivar: OH 7870
C.) Date Planted: April 25
D.) Rating Date: May 20
E.) Date Harvested: August 11
F.) Plot Size: 5 ft. by 25 ft.
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: April 25
B.) Type: Pre
C.) Soil Moisture, Surf: Moist
D.) Weather
Wind (MPH): Calm
Sky Cover: Sunny
Air Temp: 60 F
E.) Growth Stage, Crop: Pre

Weed: Pre

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

COMMENTS: There was no visible injury from any treatment. Tomatoes germinated well and a good stand was established.

CHLORAMBEN/CARBON ON DIRECT SEEDED TOMATOES

TREATMENT	YIELD LBS
CONTROL*	54.5
CARBON IN VERMICULITE**	61.1
CARBON IN FURROW SPRAY***	41.0
LEAST SIGNIFICANT DIFF 5%	27.6
STANDARD DEVIATION	12.2
COEFF. OF VARIABILITY	23.3

* Control was 3 lbai/A of Amiben.

** Carbon in vermiculite at 1 lb/ft^3/600 ft of row and 3 lbai/A Amiben applied.

*** Applied at 1 lb carbon/600 ft of row and 3 lbai/A Amiben applied

TITLE: POSTEMERGENCE WEED CONTROL IN TOMATOES

LOCATION: Fremont
PERSONNEL: S.F. Gorski & C. Willer

PLOT INFORMATION

A.) Soil Type: Sandy Loam, 3% O.M.
B.) Cultivar: Heinz 1810
C.) Date Planted: May 20
D.) Rating Date: July 5
E.) Date Harvested: September 8
F.) Plot Size: 5 ft by 30 ft
G.) Plot Design: RCB with 3 reps

HERBICIDE APPLICATION DATA

A.) Date: June 28
B.) Type: Post
C.) Soil Moisture, Surf: Moderate
D.) Weather
Wind (MPH): Calm
Sky Cover: Cloudy
Air Temp: 75 F
E.) Growth Stage, Crop: 1 ft.

Weed: none present

HERBICIDE APPLICATION EQUIPMENT

Sprayer: CO2 Backpack
GPA: 25
PSI: 35
Tips: 8002
Nozzle Spacing: 18"
Height: 18"

COMMENTS: Broadcast applications of pyridate produced foliar chlorosis varying from 15 to 25%. This injury was outgrown after several weeks. Directed applications were not phytotoxic. There was no other visible injury from any of the treatments.

POSTEMERGENCE WEED CONTROL IN TOMATOES

HERBICIDE	FORM	RATE #ai/A	GROWTH STAGE	FRUIT WT (LBS) RED	TOTAL
CONTROL				150.5	177.0
SETHOXYDIM	1.50E	0.15	POST	150.2	213.3
CROP OIL CONC.		1%	POST		
SETHOXYDIM	1.50E	0.15	POST	154.7	223.8
DASH		1%	POST		
SETHOXYDIM	1.50E	0.15	POST	173.8	222.0
METRIBUZIN	75DF	0.25	POST		
CROP OIL CONC.		1%	POST		
SETHOXYDIM	1.50E	0.15	POST	146.7	210.0
METRIBUZIN	75DF	0.25	POST		
DASH		1%	POST		
SETHOXYDIM	1.50E	0.15	POST	188.2	244.7
ACIFLUORFEN	2.00L	.125	POST		
DASH		1%	POST		
LENTAGRAN	45W	0.45	POST	150.7	227.5
LENTAGRAN	45W	.675	POST	130.3	212.8
LENTAGRAN	45W	0.90	POST	159.3	227.5
LENTAGRAN	45W	0.45	DIRE	150.7	200.2
LENTAGRAN	45W	.675	DIRE	178.0	189.2
LENTAGRAN	45W	0.90	DIRE	151.8	210.8
LENTAGRAN	45W	0.45	POST	160.7	229.3
METRIBUZIN	75DF	0.25	POST		
FLUAZIFOP-BUTYL	1E	0.25	POST	179.8	251.2
METRIBUZIN	75DF	0.38	POST		
CROP OIL CONC.		1%			
FLUAZIFOP-BUTYL	1E	0.25	POST	137.2	195.2
METRIBUZIN	75DF	0.38	POST		
DASH		1%			
LEAST SIGNIFICANT DIFF. (.05)			=	37.0	34.1
STANDARD DEVIATION			=	22.4	20.7
COEFF. OF VARIABILITY			=	27.2	18.4

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